

REMARKS

Petition for Extension of Time

It is hereby requested that the term to respond to the Examiner's Action of January 25, 2008 be extended one month, from April 25, 2008 to May 27, 2008 (May 25 being a Sunday and May 26 being a Federal holiday).

The Commissioner is hereby authorized to charge the extension fee and any additional fees associated with this communication to Deposit Account No. 50-4364.

I. Summary of the Office Action and this Reply

Claims 1, 3, 4, 6-35, 39, 41-48, and 50 are pending and rejected under 35 USC 103, over various combinations of references.

In this Reply, Applicant has amended claims 1, 22, 31, 39, 42, 48 and 50. No new matter has been added; support for the amended claims can be found, *inter alia*, in the original specification at: page 10, lines 2-16; page 13, lines 4-22; page 16, lines 7-16; page 17, lines 5-11; page 19, lines 12 – page 20, line 20; page 21, line 18 – page 22, line 15; and Figs. 2, 3 and 7.

It is to be understood that Applicant does not acquiesce to the Examiner's characterizations of the art of record or to Applicant's subject matter recited in the pending claims. Further, Applicant is not acquiescing to the Examiner's statements as to the applicability of the prior art of record to the pending claims by filing the Reply. This Reply is intended to be a full and complete response to the Office Action dated January 25, 2008.

II. Brief Discussion of the Claimed Invention

One aspect of the claimed invention relates to maintaining a data structure, such as a table, that stores information associating the first-level names of data objects with second-level names of low-level data objects, such as image files or other discrete chunks of data, that make up the corresponding data objects. For example, the data object may be a webpage, the first level name may be the URL of that webpage, the low-level data objects may be the *.gif image files contained in the webpage, and the second-level names may be numerical identifiers for those image files, e.g. 1, 2, 3, 4, 5, etc. In accordance with this aspect of the claimed invention, the low-level data objects are retrieved in a sequence corresponding to the sequence in which their second-level names appear in the first-level name table. Accordingly, for example, if the second-level names 2, 5, 12 appear in the data structure in the order 5, 12, 2 (see Fig. 2), then the low-level data object having second-level name 5 will be retrieved first, the low-level data object having second-level name 12 will be retrieved second, and the low-level data object having second-level name 2 will be retrieved third. Thus, by specifying the order in which the second-level names appear in the data structure, the content provider controls the order of priority in which the low-level data objects will be retrieved.

In accordance with another aspect of the claimed invention, additional information is provided in a data structure that is distinct from the desired data objects. This additional information includes second-level names of low-level data objects in association with location information to be used for retrieving the data object. By way of example, location information may include a transport ID (tuner frequency), a program ID, a table ID, and an extended table ID in accordance with an MPEG protocol. For

example, the low level data object having second level name 2 may be associated with location information 5.12.12.22, and the low-level data object having the second-level name 12 may be associated with location information to 225.0.0.1, 500, 1000, consistent with a multicast IP protocol. See Fig. 3. Accordingly, for example, the data objects (e.g. 2, 5, 12) retrieved to make up a single desired data object (e.g. a webpage including data objects 2, 5 and 12) may be retrieved via two distinctly different broadcast channels.

By providing this information in a data structure distinct from the desired data objects (such as webpages), there is no need to modify existing webpages, or to modify HTML or other webpage programming techniques, languages, etc.

III. Brief Discussion of the Selected Art

A. Sridhar et al.

U.S. Patent No. 6,324,583 to Sridhar et al. ("Sridhar") discloses an enhanced network communication system in which client/server communication systems are coupled over a data network. In part, Sridhar discloses that a remote communications server logically positioned between a client computer and a server computer, may, after receiving a webpage received from the server computer in response to a client computer's request, parse the webpage P11 to identify embedded references, retrieve the images/objects identified by those references, and store them at the remote communications server computer, etc. In this manner, the client computer's subsequent request for those referenced objects may be serviced by a computer "closer to" the

client computer in the network (e.g. the remote communication server or an intermediate gateway computer). Thus, data expected to be needed by the client computer is effectively prefetched in anticipation of the client computer's request for that data to reduce perceived latency in receiving the requested files at the client computer. See Sridhar, Col. 14, lines 17 -- 47; Fig. 8.

B. Nielsen

U.S. Patent No. 6,789,075 to Nielsen ("Nielsen") discloses a method and system for prioritized downloading of embedded web objects that involves use of a non-conventional HTML/web page programming technique. Nielsen's technique requires insertion of a "PRIORITY" attribute into existing anchor and tag formats in HTML source code of webpages. Thus, the webpage itself must be modified to include Nielsen's PRIORITY tag. As explicitly stated in Nielsen, "[u]sing the present invention, the author [of a webpage] assigns priority to the downloading of embedded objects [of a webpage] by adding a PRIORITY attribute to the tag for the object: ." (Col. 6, lines 23-27.) The embedded objects are subsequently downloaded in the assigned priority order using an enhanced browser. Thus, the desired web pages themselves must be modified or programmed in a non-conventional manner for use in accordance with the teachings of Nielsen.

IV. Response to 103 Rejections

All pending claims stand rejected under section 103 over Sridhar in view of Nielsen, and with respect to certain claims, further in view of Altschuler, Boon, or Bisdikian.

It is well-established that for a proper rejection under section 103, all claim limitations must be taught or suggested by the prior art.

**A. The Cited Art Neither Teaches Nor
Suggests a Data Structure Distinct from Desired
Data Objects that Includes Retrieval Priority Information**

Independent claim 1 is directed to a method for receiving data via multiple channel broadcast media. Generally, and as discussed above, the claimed invention uses metadata separate from the desired data objects to control how the desired data objects are retrieved. See application, page 12, line 17 – page 16, line 3; Figs. 2, 4 and 7. This is expressly recited in amended claim 1, which recites “providing a data structure storing second-level names in association with each of a plurality of first-level names, each of said plurality of first-level names being associated with a respective data object, said data structure being distinct from said data objects.”

Further, claim 1 recites “obtaining from said data structure a plurality of second-level names” associated with a first level name (such as a URL) that identifies the desired data object (such as a web page). Claim 1 further recites that retrieval priorities for low-level data objects (such as image files) associated with the second-level names are “set by a content provider by ordering said second-level names in said data structure.”

Accordingly, claim 1 requires that retrieval priority information is provided by a content provider in a separate data structure (such as a separate table) that is distinct from the desired data object (such as a web page) that may be requested by a user. See Figs 2, 3 and 7.

This is neither taught nor suggested by Sridhar. In fact, the Action states:

Sridhar et al fail to explicitly teach said low-level data objects being in order by retrieval priority and a web page comprising at least a portion of said low-level data objects for retrieval and display in a [sic] order defined by said retrieval priority, wherein said retrieval priority is set by a content provider. See Action, page 3.

The Action further states that Nielsen “teaches the retrieval of low-level embedded web objects according to their associated priority attribute, with the priority attribute assigned by the author of the webpage.” See Action, page 3.

However, Nielsen discloses that the priority attribute information is inserted directly into the desired data object, i.e., the requested web page. This requires modification of existing web pages, changes to the techniques for programming new web pages, and an enhanced browser capable of processing such information. In contrast, the claimed invention does involve storing priority information in the desired data object. Instead, the claimed invention requires storing retrieval priority information in a data structure distinct from the desired data object. Accordingly, in contrast to Nielsen, the claimed invention does not require any modification of any existing web page, nor does it require any changes to existing techniques for programming web pages.

For at least this reason, not all claim limitations are taught or suggested by the cited art. Further, the cited art fails to provide a reason for combining the cited art or

modifying the teachings of Sridhar to arrive at the claimed invention. Further still, the claimed invention is not otherwise rendered obvious by the cited art.

Independent claims 22, 39, 48 and 50 include similar recitations. Claims 3, 4, 6-35, and 41-47 depend from these independent claims.

For at least this reason, reconsideration and withdrawal of the rejections of claims 1, 3, 4, 6-30, 39, 41-48 and 50 are requested respectfully.

**B. The Cited Art Neither Teaches Nor Suggests
Retrieving Low-Level Data Objects in an Order
Corresponding to an Order in Which Their Second
Level Names Are Arranged in the Data Structure Distinct**

As discussed above, the data structure (e.g., table) recited in claim 1 is distinct from the desired data object (e.g., web page) recited in claim 1. This is clearly neither taught nor suggested by Sridhar. To the extent that Nielsen discloses use of priority information, Nielsen discloses inclusion of priority information in the desired data object itself, namely in the HTML source code of a desired web page.

Independent claim 1 further recites "retrieving an associated low level data object for each second-level name, said low level data objects being retrieved in an order corresponding to the order in which said second level names appear in said data structure."

This is neither taught nor suggested by Sridhar. To the extent that Nielsen discloses use of priority information, Nielsen discloses "inserting a 'PRIORITY' attribute into existing [HTML] anchor and tag formats." Col. 6, lines 17-27. Thus, the PRIORITY attribute is provided in the HTML tag for each image file, which is arguably analogous to

the claimed "low-level data object." Further, Nielsen discloses that the PRIORITY attribute is an express numerical ranking of priority, "5". By way of example, other objects may have expressly-stated priorities of "4" or "6", to denote higher or lower priorities, etc. Further, Nielsen teaches that the PRIORITY attribute for a data object (e.g., "5") is distinct from its name (e.g., mypicture.gif). Col. 6, lines 23-27.

In contrast, the claimed invention involves identifying retrieval priority for low-level data objects implicitly, not expressly. For example, a specific priority ranking is not provided for any low-level data object. Instead, the retrieval priority is implied by the order in which the names of the low-level data objects appear in the data structure. For example, data objects having names 2, 5, and 12 may appear in the table in the following sequential orders:

2, 5, 12

2, 12, 5

5, 2, 12

5, 12, 2

12, 2, 5,

12, 5, 2

In each of these exemplary sequences, the name appearing first in the data structure has a first retrieval priority, the name appearing second has a second retrieval priority, and the name appearing third has a third retrieval priority. The numbers 2, 5 and 12 in this example do not denote retrieval priorities; they are second-level names of the low-level data objects. See Figures 2 and 3.

The cited art neither teaches nor suggests retrieving low-level data objects in an order corresponding to an order in which second level names of the objects are arranged in a data structure distinct from the desired data object.

For at least this reason, the cited art fails to teach or suggest all limitations of claim 1. Further, the cited art fails to provide a reason for combining the cited art or modifying the teachings of Sridhar to arrive at the claimed invention. Further still, the claimed invention is not otherwise rendered obvious by the cited art. Claims 22, 31, 39 48 and 50 include similar recitations. Claims 3, 4, 6-35, and 41-47 depend from these independent claims.

For at least this reason, reconsideration and withdrawal of the rejections of claims 1, 3, 4, 6-35, 39, 41-48 and 50 are requested respectfully.

**C. The Cited Art Neither Teaches Nor
Suggests Obtaining Low-Level Data Objects
and Location Information via Distinct Broadcast Channels**

Claim 1 recites "obtaining location information associated with said second-level names via a first broadcast channel, said location information identifying at least two of multiple broadcast channels for carrying data associated with said low-level data objects."

Claim 31 recites "associating a location with each second-level name, the associated locations of said second-level names collectively identifying at least two distinct broadcast channels for carrying data associated with said low level data objects."

Claim 39 recites “a third mechanism configured to obtain via a first broadcast channel location information associated with said second-level names, said location information identifying at least two distinct broadcast channels for carrying data associated with said plurality of low-level data objects.”

Claim 48 recites “a second obtain mechanism configured to obtain via a first broadcast channel location information associated with said second-level names, said location information identifying at least two of multiple broadcast channels for carrying data associated with said low-level data objects.”

Claim 50 recites “computer readable program code being configured to cause said computer to effect a second obtain mechanism configured to obtain location information associated with said second-level names via a first broadcast channel, said location information identifying at least two of multiple broadcast channels for carrying data associated with said low-level data objects.”

Generally, these claims include recitations relating to including information in a data structure that provides different broadcast channel location information for various different low-level data objects, and/or receiving location information via a first broadcast channel and identifying at least one distinct/different broadcast channel for retrieval of low-level data objects. For the specific recitations of each claim, see claims 1, 31, 39, 48, 50. Accordingly, for example, different broadcast channels, including different protocols, may be used to retrieve different low-level data objects (such as image files) included in a single desired data object (e.g., web page). This allows bandwidth to be used more efficiently to retrieve data. See Fig. 2; page 9, lines 1-7; page 11, lines 6-10.

Accordingly, the cited art fails to teach or suggest all limitations of claims 1, 31, 39, 48, 50. Further, the cited art fails to provide a reason for combining the cited art or modifying the teachings of Sridhar to arrive at the claimed invention. Further still, the claimed invention is not otherwise rendered obvious by the cited art. Claims 3, 4, 6-35, and 41-47 depend from these independent claims. For this additional reason, reconsideration and withdrawal of the rejections of claims 1, 3, 4, 6-35, 39, 41-48 and 50 are requested respectfully.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants believe claims to be patentable and the application in condition for allowance, and request respectfully issuance of a Notice of Allowance. If any issues remain, the undersigned requests a telephone interview prior to the issuance of an action.

Respectfully submitted,
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by:

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